Death in the Digital Age:

An Heirs and Users Guide to Digital Assets and Posthumous Rights

Stephanie G Palmer

Johns Hopkins University

Museum Studies

Digital Curation Certification Program

September 7, 2018

Table of Contents

Abstract

In the digital age, social media platforms and digital accounts contain a variety of digital assets that hold personal or monetary value. When a user dies, their heirs must take into account the number of legal issues they could face in order to gain access to a user's digital assets. This research paper provides heirs and users resources and tools to assess digital assets, navigate potential legal issues, and implement methods for long-term preservation. Analyzing legal publications and case studies to evaluate the current legal environment and find answers to common questions about ownership and inheritance rights to digital assets hosted by third parties. What are the types of digital assets that exist on these social media and digital accounts? What are the legal issues involved with obtaining the rights to access a deceased user's digital assets? What planning is necessary to ensure heirs continued access to these types of digital assets? How can the principles of digital preservation be applied to promote the long-term preservation of these digital assets?

Keywords: Posthumous rights, digital assets, social media platforms, digital accounts

Introduction and Problem Statement

As a society, technology has had a significant impact on our lives. With the introduction of the internet and personal computers, we have turned a digital world filled with 1's and 0's into a familiar place. As netizens, we will live our everyday lives in this virtual world communicating, networking, socializing, and consuming. We surround ourselves with digital assets through social media platforms and digital accounts that are downloaded, posted, modified, and maintained. While this virtual world seems never ending, the mortality of the users who participate within it is tied to the physical realm. Every day, some of these users leave behind digital assets that can possess both personal and monetary value, but thanks to the legislative pitfalls of current terms of service agreements, heirs are struggling to gain the rights to access them. To provide heirs and users with the necessary tools to gain and provide access to these digital assets, several questions need to be answered. What are the types of digital assets that exist on these social media and digital accounts? What are the legal issues involved with obtaining the rights to access a deceased user's digital assets? What planning is necessary to ensure heirs continued access to these types of digital assets? How can the principles of digital preservation be applied to promote the long-term preservation of these digital assets?

Literature Review

To understand the complicated nature and history of posthumous rights and digital assets in the United States, it is important to evaluate and understand what cases and state legislation set the legal precedence. Rachel Ferreante's paper "The Relationship Between Digital Assets and Their Transference at Death 'It's Complicated'" explains what the legal landscape looked like before the 2015 enactment of the Uniform Fiduciary Access to Digital Assets Act (UFADAA). Ferreante (2013) begins her paper by discussing the 2010 case of the Stassen family in Minnesota, who after the suicide of their son reached out to Facebook for access to his account in the pursuit of finding answers (p.38). In this case and like many others that followed, Facebook chose to honor its privacy agreement with the deceased user and denied the heirs access to his account (Ferreante, 2013, p.39). The Stassen family had to seek a court order that prolonged the legal process before an outcome could be determined in their favor (Ferreante). Despite the number of cases involving posthumous access to digital assets on the rise, by 2013 only five states had enacted digital asset legislation: Connecticut, Rhode Island, Indiana, Oklahoma, and Idaho (Ferreante, 2013, p.51). According to Ferreante (2013), in 2005 Connecticut was the first to enact statutes that addressed digital assets in terms of estate planning (p.51). Each state that followed Connecticut, developed similar legislative guidelines that focus on estate planning and digital assets (Ferreante, 2013, p.51). The formation of estate planning centric legislation is what led to the development and implementation of digital estate planning (DEP), by "proponents" of the movement as a tool to overcome legal issues rooted in social media and digital accounts terms of service agreements (Ferreante, 2013, p.55).

As state legislation was changing to take into account digital assets and estate planning, federal legislation like the Stored Communications Act (SCA) and 1980's Electronic Communications Privacy Act (ECPA), remained unchanged, which complicated the interpretation of state legislation and terms of service contracts. Heather Antoine's article "Digital Legacies: Who Owns Your Online Life After Death?" simplifies and explains the effects that SCA and ECPA have on a user's privacy rights after death. Antoine (2016) points out that since the 1980's emergence of the SCA and ECPA a lot has changed in terms of communication service provider definitions and that these changes need to be taken into account on a federal level (p. 16). Despite their age, both the SCA and ECPA are still cited by social media and digital account providers to support their right to deny access to heirs under their terms of service agreements. Antoine (2016) supports this evaluation by providing readers with access to relevant cases that cite the SCA and ECPA (e.g. In re Estate of Ellsworth, In Re Facebook, and Negro V. Supreme Court) (p.18). Further evaluation of these cases also shows that an effective long term solution to dealing with posthumous rights and digital assets in the future needs to come from the federal level and will remain unresolved as long as the terms of service agreements are using 1980's federal legislation to set legal precedent (Antoine, 2016, p.19).

To overcome these legal barriers, users and heirs need to understand why DEP is an effective tool for gaining access to digital assets or accounts. According to the Sasha A. Klein and Mark R. Partherner's (2015) article "Plan Ahead: Protect Your #Digital footprint" DEP can be utilized as an effective tool for fiduciaries against service providers' terms of service when paired with the Revised 2015 Uniform Law Commissions UFADAA(pp.52-53). The UFADAA

is an important piece of legislation for digital estate planners because it is one of the only ways heirs can access a user's account without violating either the ECPA or the account terms of service (p.53). Which is why educating the public about DEP is vital, because it can only become an efficient legal device under the UFADAA if a user's digital estate plan provides power of attorney to a fiduciary not an heir, a technicality that allows the fiduciary to access the account on behalf of the heirs.

However, traditional DEP through a fiduciary under the UFADAA might not be enough to guarantee digital access rights to heirs, based on the accounts terms of service. Which is why users need to be aware of additional tools or planning methods available to them. Jan Zastrow's "Online Legacies and Digital Estate Planning" article provides alternate planning methods based on current tools and resources. Such tools include "posthumous email service" (e.g. Safe Beyond, Dead Man's Switch, and Ifiddie.org) that act as digital executors and automatically ping an assigned email to see if the user is still active or "alive" (Zastrow, 2017, p.15). However, users need to be aware that while these types of digital executor tools are readily available, the sites are not guaranteed to be around when they are needed. Zastrow (2017) also suggests that users utilize account management tools that are available on social media and digital accounts (e.g. Google's Inactive Account Manager) (p.14). However, all of this requires active planning on the user's part which will not always be the case.

If DEP is not an option for heirs what is? to answer this question, it is necessary to look at the current literature to see what other legal options exist if the user does not create a digital estate plan. Natasha Chu does this in the article "Protecting Privacy After Death," by specifically identifying young adult users, who are at a higher risk of passing away unexpectedly without a

plan (2015, p. 257). Since it is impossible to analyze every terms of service agreement, to find a unified legal solution, Chu (2015) applies theories behind contract and property law to digital assets to discover potential solutions (p. 225). For these users and heirs who do not have a digital estate plan in place Chu's (2015) research suggests, that as long as legislation considers digital assets as content held in terms of a contract, that favors social media and digital account providers, contract law is an insufficient method of protecting posthumous rights (pp.261-262). While property laws might hold the answer, the methodology behind it needs to evolve to address how probate courts handle digital assets (Chu, 2015, p.264). Primarily these issues occur because there currently is no established connection between digital assets and physical property in federal legislation that protects both posthumous privacy and property rights (Chu, 2015, pp. 266-269).

If federal legislation does change, it will not just be influenced by state legislation but international legislation as well. In Michelle Goddard's article "The EU General Data Protection Regulation (GDPR): European Regulation that has a global Impact" one of the most influential international laws about user privacy is reviewed. Implemented in 2018, the European Union's (EU) General Data Protection Regulation (GDPR), is founded on the principle that privacy rights are "a fundamental human right" especially when it concerns personal data from EU users (Goddard, 2017, p.703). The GDRP provides EU users with the right to know exactly how their data is being used and collected through the mandatory application of transparent "accessible language to ensure that it can easily be understood" (Goddard, 2017, p.704). This means that standard terms of service agreements might not be enough to meet this initial standard and would push social media and digital account providers to develop a new contractual method for seeking

rights to users' data. Goddard (2017) points out that while the legislation itself does face some flexibility challenges for member states of the EU, it does affect the "balance of power" prioritizing individual rights to their data over that of organizations (p. 705).

The effects that the implementation of the GDPR has on posthumous rights and digital assets is not openly discussed in current literature. In the 2013 article "Does the EU Data Protection Regime Protect Post-Mortem Privacy and What Could Be The Potential Alternatives?" by Edina Harbinja, the topic is covered in reference to some of the earlier editions of the GDPR legislation. Harbinja (2013) goes into great depth about the "phenomenon" around post-mortem privacy issues in the EU up until this point (para. 4). Harbinja suggests that posthumous rights surrounding digital assets will fall on the member states of the EU and their own definitions or policies surrounding survivorship and post-mortem privacy (para. 18-19). This is due in part to the fact that the GDPR in its current state only applies to data of living subjects who are more actively concerned about the use of their data, in comparison to the rights of non-living subjects (Harbinja, 2013, para. 21). However, Harbinja (2013) argues that because personal data can be considered property because it is seen as a commodity amongst data collectors (para. 24). As a commodity, personal data, according to Harbinja (2013) would fall under the "property rights model" which is a familiar sentiment in other current cited literature in this review on the topic of posthumous rights and digital assets (para. 24). Harbinja (2013) argues that "propertisation" of data would allow data to be processed under estate law and can be applied to the transfer of the deceased's rights to protect their personal data to their heirs (para. 33-34). However, in regards to data protection and privacy, the theoretical application of property rights might also have a negative impact and enable the selling of data that would result in the loss of individual control and

in turn cause more legal issues when dealing with the implementation of the GDPR (Harbinja, 2013, para. 26).

Establishing a connection between property rights and digital assets is a complex one that requires some deeper understanding. In Natalie Banta's (2017) article "Property Interests in Digital Assets: The Rise of Digital Feudalism" the theories behind physical property and ownership (e.g. labor, utilitarian and personhood) are applied to digital assets to establish user property rights (p.1099). Banta begins by describing how the labor, utilitarian, and personhood theories contributed to the evolution of modern-day property laws in the United States. The article's intent is to provide readers with an extensive explanation and analysis on the rise and interpretation of theories associated with physical ownership and digital assets. Banta (2017) focuses on the key elements of what defines property in terms of the right to exclude, process, use, transfer, and devise (p.1104). It is only through the process of applying those key elements to digital assets in email, social media, rewards programs, and digital media, that Banta (2017) can fully compare digital assets and physical property side by side (pp.1104-1106). Banta (2017) makes several strong arguments that favor the coupling of property rights and digital assets using these three theories that are associated with a user's self-identity and value system. It is suggested in the literature that these types of privacy and property rights are essential elements that humans impose only on objects that hold personal and monetary value.

So far, the literature on the topic of posthumous rights and digital assets covers issues and theories surrounding property and privacy rights. However, more information is needed to provide heirs with the tools to assess the potential value of digital assets on social media and digital accounts. The answers to this might be found in literature from the information science

professional field which uses user data to generate theories behind user behavior and patterns. In the study, "Who Do You Think You Are? Common and Differential Effects of Social Self-Identity on Social Media Usage" by Zhao Pan, Yaobin Lu, Bin Wang, and Patrick Y.K. Chau, user data can be mined and analyzed to determine behavioral patterns within various social media tools. Terminology like "reinforced use"[1] and "varied use"[2] are used in this study to describe levels of user activity; for those working in the information professional field this type of identification can help developers of social media tools develop new methodologies or systems to promote, add, or modify current tools to promote "long-term relationships" with its users (Pan, Lu, Wan, & Chau, 2017, p.72). This terminology can also be used by the heirs to describe or categorize the importance or value a deceased loved one put on their social media, based on a record of individual use and the tools they utilized.

Another way an heir can comprehend and place value on a users digital assets is to look at the users personal behavior patterns on a platform. This behavioral evaluation is described in the research article "Posting, Lurking, and Networking: Behaviors and Characteristics of Consumers in the Context of User-Generated Content" by Margaret Morrison, Hyuk Jun Cheon, and Sally McMillan. The purpose of the article is to address how the examination of user-generated content can be combined with information about user behavior to direct marketing campaigns (Morrison, Cheong, & McMillan, 2013, p. 97). The concept proposed is simple and implies that there are three types of online social media and digital account user behaviors; posting, lurking, and networking (Morrison et al., 2013, pp. 100-101). For heirs to utilize this information to analyze a user's account and digital assets, it is also

[1] "...use of social media in repetitive and enhanced ways…"(Pan, Lu, Wan, & Chau, 2017, p.72).
[2] "...applying various new features or using social media in novel ways."(Pan, Lu, Wan, & Chau, 2017, p.72).

necessary to apply the concept as part of an evaluation of the amount and quality of unique user generated content posted by the user on each individual account. If a user is consistently dedicating time to post user generated content, then it can be inferred that the digital assets on the social media or digital account were highly valued or played an important part in the user's own self-identity making them also valuable to the heirs seeking to access them.

Based on this assessment and evaluation of the literature, all published within the last five years, there have been a number of legislative changes on a state and international level that have had a significant impact on the discussion of posthumous rights and digital assets. However, due to the fact that this current legislation does not encompass every legal issue that can arise, stakeholders are left to rely on identifying and pursuing legal loopholes. Without DEP, users and heirs are left dealing with digital account providers, who don't want to set a legal precedent that would affect them negatively (e.g.privacy rights, paid for content). This lack of options for heirs and users is why most of the literature tries to focus on issues surrounding two primary concepts, user privacy rights and digital assets as property, both are considered by professionals key elements in the development of long term solutions for posthumous rights in a digital age. The topic heavily incorporates legal terminology and legislative analysis, on both a theoretical level and through practical applications trying to find that link between physical property and digital assets. For heirs,this process is daunting when a digital estate plan is not available, and assessing the value of digital assets is vital. So, it is imperative to seek out and incorporate knowledge from other fields of study, that look at past user behavioral trends to help analyze and assign value to digital accounts and assets. Considering that these studies might hold additional answers

to creating a mechanism that heirs can use to add value to digital assets or accounts, means that they need to be cross referenced in future literature on the topic.

Research Design

Comparative Analysis

To answer the main research problem and sub-questions, it is necessary to use a methodology that will offer the ability to compare and analyze current publications. Since the state of knowledge on the topic encompasses various fields of study, using a comparative and analytical method will produce the best results. Publications and relevant work from lawyers and information system specialists will be featured as part of this analysis. The data that is produced as part of the literature review will identify potential strengths and weaknesses about "what is known" when dealing with posthumous rights and digital assets. Furthermore, it will identify gaps in the knowledge base and be utilized to propose and implement long-term planning solutions.

Case-Studies

To generate data that encompasses a variety of fields of study that might be relevant to the analytical outcome of the research on posthumous rights and digital assets, case study results from the information science professional field on user behavior and demographics are necessary. This data will be used and analyzed to create a methodology that is used to implement and generate diagrams and procedures that heirs and users can use to assess digital assets and navigate legal issues.

Discussion and Evaluation

To conduct a comprehensive discussion on the topic of posthumous rights and digital assets, it is necessary to first identify the stakeholders, digital assets at stake, and legal issues. This discussion will then aid in the evaluation of potential planning, curating, and recovery methods that can be utilized by users and heirs to manage the variety of digital assets found on social media platforms and digital accounts.

Stakeholders

Throughout the available literature on the topic of posthumous rights and digital assets, there are at least five notable stakeholders: users, heirs, fiduciaries, social media platforms, and digital account providers. Of the five stakeholders in the discussion, social media platforms and digital account providers, have various definitions that are subject to change. This difference in definitions of social media platforms and digital account providers is important to note when evaluating potential planning, curating, and recovery methods.

Users. A user is an individual who uses a social media platform or digital account. In order to become a social media or digital account user, they must accept a site's or provider's terms of service.

Heirs. An heir is an individual who seeks the right to access a user's account after the user's death. This individual is identified through the process of a will or in some cases

self-appointment, these rights tend to vary based on the relationship they had with the deceased user.

Fiduciaries. A fiduciary is the legal entity that acts on behalf of a user's will to manage their estate and distribute property to their heirs.

Social Media Platforms. Social media platforms are sites and applications that are used to communicate and network Facebook, Twitter, Instagram, LinkedIn, Tumblr, Pinterest, Snapchat, and dating platforms (e.g. Tinder, Bumble, etc.).

Digital Account Providers. Digital account providers are sites or applications that allow a user to access and manage dynamic content through the use of one user login (e.g. Google and Yahoo). This category includes digital accounts that are used to purchase digital assets or generate income through user generated content: Apple, YouTube, Amazon, Twitch, Steam, Patreon, and Flickr.

Value of Digital Assets

Understanding the value of digital assets on social media platforms and digital accounts is an important part of the posthumous rights narrative. To analyze the value of digital assets, users and heirs must go through an appraisal and selection process of the overall personal and monetary value of each asset. This is a difficult task because not all digital assets are created equal nor should every digital asset be accessed and saved.

Social Media. The types of digital assets that exist on social media tend to be very personal for both the user who created them and the heir seeking to access them. Social media accounts can contain family photos, personal posts, comments, unique user-generated content, and private messages.

Digital Accounts. The value and types of digital assets that exist on digital accounts is often determined by the nature of the account (e.g. consume or produce). Digital accounts that have a consumer or producer user base contain assets that have monetary value through purchased content (e.g. music, videos, games, etc.) or generated income. Other types of digital accounts might contain digital assets in the form of user-generated documents or correspondence that contain information of a personal or monetary nature.

Legal Issues

A majority of the legal issues surrounding digital assets and posthumous rights extend from terms of service agreements. For heirs to mitigate this issue and gain access to digital assets that exist on social media and digital accounts, they need to understand how current state and federal legislation interprets terms of service agreements and sets precedence with cases.

Terms of Service. Every social media and digital account user has agreed to a terms of service agreement when creating an account. Terms of service agreements are non-negotiable contracts that a user must accept to access the site. Social media and digital account terms of service designate the privacy rights of their users, as well as property rights to digital assets purchased or posted on the site. Privacy rights of users, both alive and deceased, are protected to an extent by a majority of terms of service agreements under the federal ECPA. Social media platforms and digital account providers use the ECPA to prevent access to digital assets that are considered private (e.g. direct messages and emails) (Oath Holdings, Inc v. Ajemian, 2018). Property rights to a user's purchased digital assets are also defined by the terms of service agreements that refer to the purchase of digital licenses rather than digital assets (Banta, 2017, p. 1125). The difference

between purchasing a digital license versus a digital asset is that many of the license agreements contain limitations about ownership and digital asset transference or survivorship rights.

State Legislation. State legislation surrounding digital assets and posthumous rights changed in 2011, when Jim Lamm, a Minnesota estate lawyer, and his colleague Gene Henning submitted a project proposal to the ULC (Lamm, 2012). By 2014, the ULC had developed the first UFADAA to provide fiduciaries with an effective tool to obtain access to digital assets and deal with terms of service agreements. The UFADAA was revised in 2015 to take into account the ECPA privacy regulations concerning private messages and emails (Uniform Law Commission, n.d.a). To utilize the UFADAA users need to live in a state that has the UFADAA enacted, as well as have a digital estate plan that provides their heirs with information about the value and location of their digital assets (Uniform Law Commission, n.d.b). Without a digital estate plan in place, heirs are left to decide on their own what the personal and monetary value of digital assets and accounts and who is responsible for maintaining them. Today, the UFADAA has been endorsed by tech companies and is enacted in over 40 states replacing older out of date state legislation (Uniform Law Commission, n.d.b). For the states that have not enacted the UFADAA, tech companies are watching carefully to deter legal rulings that would set a precedent that would generate future legal issues that could complicate matters when dealing with posthumous user's privacy rights. An example of this is the *amici curiae* (friend of the court) brief for the case of Oath Holdings v. Ajemain (2018) where tech companies Facebook, Google, Dropbox, Evernote, Glassdoor, The Internet Association, and Net Choice petitioned the Massachusetts Supreme Judicial Court to reverse its decision. This case cited the violation of several federal laws including the ECPA, by the court who allowed the respondents (heirs) access to the decedent's

Yahoo email and overrode the ruling of the probate court. They specifically indicated that the current ruling could impact millions of American privacy rights by allowing the disclosure of private information against their will (Oath Holdings, Inc v. Ajemian, 2018).

Federal Legislation. Federal level legislation concerning rights and access to digital assets on the internet (e.g. ECPA and SCA) were written in the mid 1980's (Antoine, 2016, p.16). The ECPA was founded on the principles of defining the government's rights versus citizens' rights when wiretapping (Ferrante, 2013, p. 45). The SCA, outlines when a service provider can disclose email or electronic communications to third parties (Ferrante,2013, p.46). However, it is important to note that the internet has grown and changed since the ECPA and SCA were enacted, predominantly with changes in personal technology, allowing more users access to the internet. Today the ECPA is applied to all types of "transferred" electronic communications, while the SCA sill promotes the privacy interests of the public, and is used in a similar manner to regulate third-party access (Ferrante, 2013, pp.45-46). Neither the ECPA nor the SCA defines social media or digital account user's posthumous privacy rights, which is what makes the legal process more complicated for heirs and fiduciaries.

International Law. The GDPR was enacted in the EU in 2018 to protect the privacy rights of its citizens' personal data (Goddard, 2017, p. 703). While the language of the legislation itself refers to data, it can be argued that the GDPR will also have an effect on the management and privacy of EU citizens digital assets. Although the GDPR does not specifically address issues around data privacy for deceased users, it has changed the way individuals who reside within the EU control the right to their personal information (Goddard, 2017, p.703). For an individual user to be able to possess the rights to control the use of one's own personal data is a step in the right

direction for developing future legislation that could have a direct impact on digital posthumous privacy and property rights. Today however, the decision regarding posthumous rights is not a uniform one and rests in the legislation of individual member states that make up the EU (Harbinja, 2013, para. 8-13).

Planning, Curating, and Recovering

From a digital curation perspective, these legal issues present an interesting challenge for the future preservation of digital assets that exist on social media and digital accounts which is why it is necessary to explore current planning, digital curation, and recovery methods to develop a toolkit that helps both users and heirs manage digital assets. State, federal, and international legislation have set the precedence for the development and implementation of digital assets estate planning. Current literature follows that precedence by providing fiduciaries with tools like digital asset management worksheets and guides for planning. However, to provide heirs and users with a well-rounded toolkit, it is essential to break down these current planning methods and implement a new framework based on digital curation best practices. This new framework will also include resources and tools that can be used as potential recovery methods for heirs or users who wish to capture digital assets as they exist in the public realm.

Planning. There is no doubt that planning plays an important role in the successful implementation of the UFADAA by fiduciaries to gain access to digital assets. This is based on the knowledge that a majority of privacy concerns stem from undesignated or self-appointed

heirs. The proposed Digital Asset Planning Decision Tree for Users (see Figure 1) shows how appointing an heir, or even giving power of attorney to a fiduciary, can prevent the loss and mismanagement of digital assets. Thanks to the development of DEP there currently exists a lot of documentation and worksheets (e.g. Your Digital Afterlife) that can help users log and assess information about their digital assets. For the most part a majority of these planning tools are derived from financial and estate planning fields, which means they are great for compiling asset information associated with personal and monetary value. The Self Curation Model (see Figure 2) emphasizes this part of the pre-planning phase that is covered by DEP, in only one of its four sections. Another remark about current planning methods is that they do not fully take into account curation and preservation methods. Exporting digital assets might not be an option even when access to the account is granted despite the development of a DEP which is why it is important to develop planning worksheets for both users and heirs that take into account that not all digital assets are created equal and not all of the digital assets are preserveable on social media and digital accounts. This is not the only inconsistency that needs to be taken into account when developing a DEP. Both heirs and users need to realize that terms of service agreements are constantly changing in regards to user privacy and property rights. Figures are available throughout the literature on the topic that break down these types of terms of service agreements, but due to the continued development and impact of new legislation like the GDPR and the UFADAA has on terms of service agreements, these figures can easily become outdated, which is why it is ideal to find a universal methodology to planning that takes into account terms of service as a constantly changing variable.

Curating. For the purpose of this discussion and evaluation of posthumous rights and digital assets, the development and implementation of a Self Curation Model is essential. For users, it provides information on the process involved for the long-term preservation of their digital assets. Additionally, the Self Curation Model assists heirs by providing information relevant to long term planning so valuable digital assets will always be accessible to them. There are four steps in this proposed Self Curation Model: analyze, curate, preserve, and verify.

The analysis step incorporates both the appraisal and selection process users and heirs must go through to evaluate the value of a digital asset. A majority of this analysis process is covered in estate and financial planning worksheets. For heirs who are trying to analyze the value of digital assets when planning was not an option due to sudden death, this step will be the most arduous of the self-curation model. To assist heirs with this process is the Digital Asset Planning Decision Tree for Heirs (see Figure 3) that helps direct heirs through the decision-making process in both the event that the user had a will or did not have a will in place. If it is established that the digital assets in question possess a monetary or personal value, the decision tree will help navigate heirs to potential legal outcomes for obtaining access to these digital assets.

The next step of the Self Curation Model cycle is the curation step that involves access, exportation, and organization. Once an heir or user appraises the value and selects the digital assets they wish to preserve, they need to start the process of gathering them by obtaining access to the user's account, exporting digital assets, and developing a file system for organization. For a majority of users, the process of accessing and exporting digital assets on their accounts is relatively easy, since they have the rights to access their own content. Users can also utilize web

recorder tools developed by Rhizome (n.d.) to preserve their born-digital art on interactive website copies. However, for heirs the process can be a lot more difficult due to issues involving survivorship and transference that can prevent them from accessing and exporting a user's digital assets. To overcome this challenge, heirs need to refer back to the Digital Asset Planning Tree for Heirs (see Figure 3), to discover what actions are required for access and exportation.

Now that heirs and users have gone through the process of analyzing and curating their digital assets, it is time to talk about preservation. Some of the most effective models for digital preservation involve Lots Of Copies Keeps Stuff Safe (LOCKSS) method, which is based on the theory that the more copies there are of something in various locations the less likely it will be lost due to bit rot or hardware failure. Users and heirs also need to save these copies as file formats that will stand the test of time. The Library of Congress provides resources that can be utilized by users and heirs on the subject of personal digital archiving tools for preserving digital photographs, digital audio, digital video, emails, personal digital files, and websites (Library of Congress, n.d.).

The last and final step of the self-curation model is to verify, which involves the use and reuse of digital assets over time. This step is essential in monitoring the overall health of the digital asset collection. If a digital asset suffers bit rot or loss due to hardware failure, users and heirs might not be able to recover it. Having a system in place to monitor the accessibility and condition of these valuable digital assets are all part of the long-term preservation process and one of the only ways to guarantee that these emotionally charged and priceless assets will be around after the social media platform or digital account is gone.

Recovery. Recovery of lost or corrupted digital assets is not a simple task, and for many users and heirs who did not follow proper digital preservation procedures, it is almost impossible. As discussed in the verify section of the self-curation model, digital assets can fall prey to a number of different technical issues, which is why the LOCKSS method is so important because there are not a lot of digital asset recovery options available. It would be remiss not to mention the Internet Archive's Wayback Machine, as a possible loophole. However, it is important to note that the Wayback Machine does not consistently archive personal websites or social media profiles, which means that users and heirs are limited to save archival snap shots which reinforces the ideology behind long-term preservation planning and the implementation of digital curation practices in DEP models (Internet Archive, n.d.).

Conclusion

With a greater understanding of who the stakeholders are and the legislation that exists surrounding the topic of posthumous rights and digital assets, current tools and methodologies can and should be improved upon. As indicated in the research, the best way to do this is through the application of theories or practices from other fields of studies in conjunction with current legislation. This will provide users and heirs with the ability to analyze and provide depth to their arguments for how they place value on digital assets. By focusing on both user behavioral studies and the lifecycle of the digital assets, they seek to gain access to, a new mechanism for evaluation can be implemented. Because the truth is that users and heirs can not guarantee that there will be a long term plan in place, that will take into account changes that occur in terms of service agreements or legislation, that will continually protect their rights or the transference of rights to these digital assets. Which is why determining value can be so invaluable to their request for access. The self curation model can be considered as an additional tool in this process because it provides users and heirs with the ability to see if long term access is reliant on having access to the account or if sufficient long term access can be provided through a data download. If a download is sufficient, the self curation model also determines what needs to be done by the user or heir to guarantee continued long term access to those digital assets.

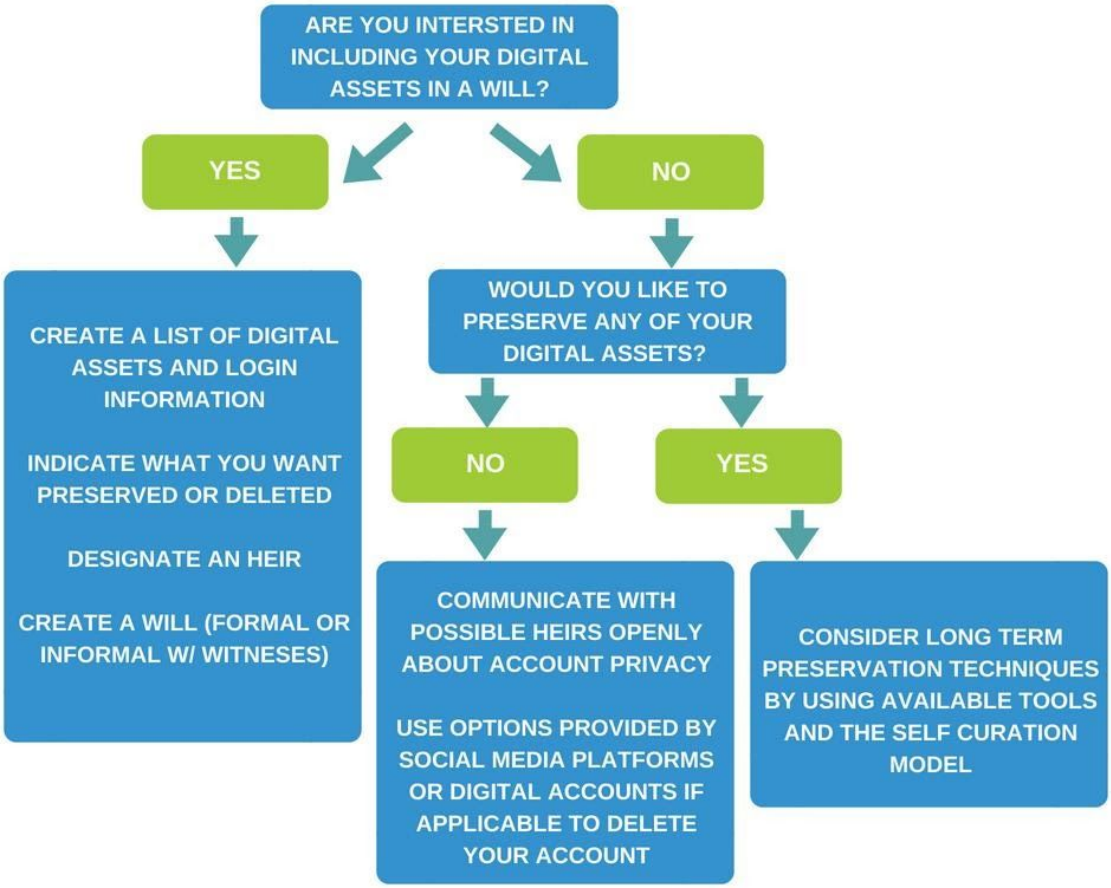

Figure 1 Digital Asset Planning Decision Tree For Users. Credit: Stephanie G. Palmer, 2018.

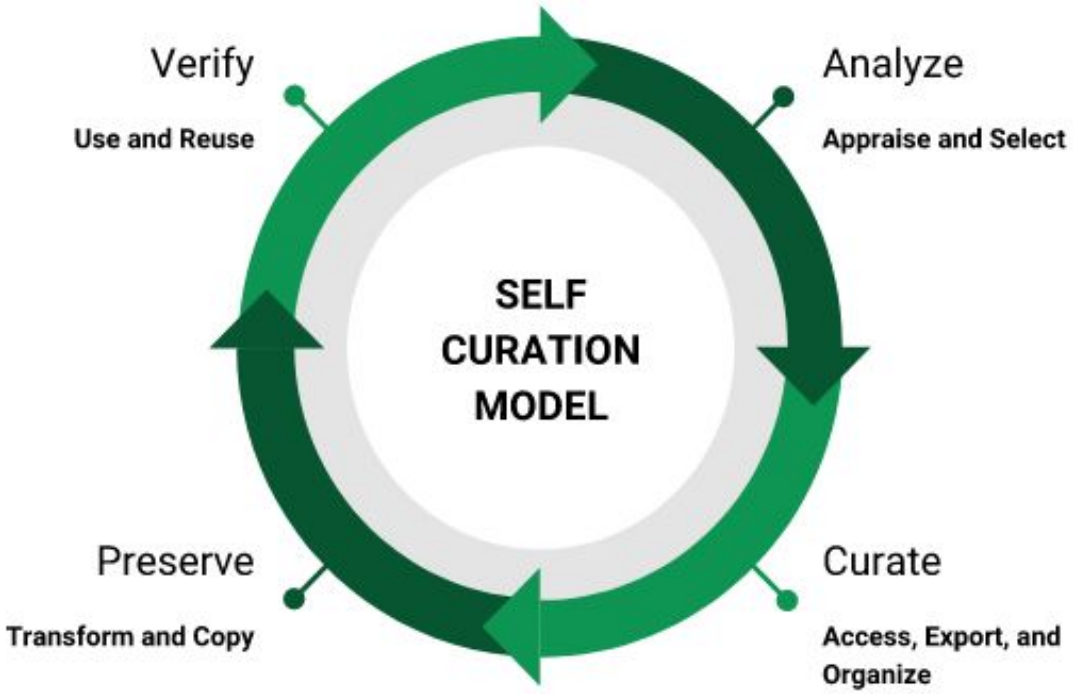

Figure 2 Self Curation Model. Credit: Stephanie G. Palmer, 2018.

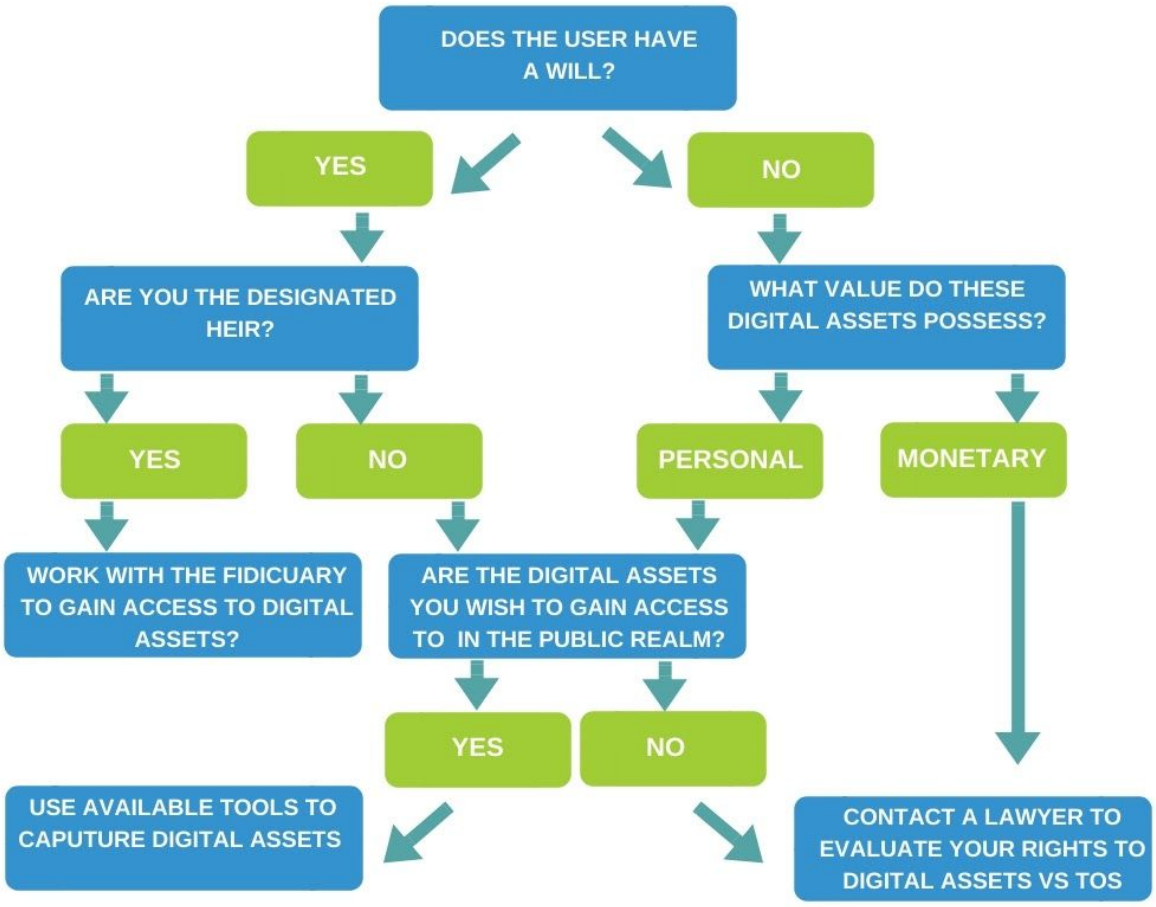

Figure 3 Digital Asset Planning Decision Tree For Heirs. Credit: Stephanie G. Palmer, 2018.

References

Antoine, H. (2016). Digital legacies: Who owns your online life after death? Computer & Internet Lawyer, 33(4), 15-20. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=113775665&site=ehost-live&scope=site

Brief for Facebook, Inc. et al. as Amici Curiae Supporting Petitioner, Oath Holdings, Inc. v. Ajemain,et al. (2018) (no. 17-1005), 2018 WL 1084300.

Banta, N. M. (2017). Property interests in digital assets: The rise of digital feudalism. Cardozo Law Review, 38(3), 1099-1157. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=121634251&site=ehost-live&scope=site

Carroll, E. & Romano, J. (2011). *Your Digital Afterlife*. Retrieved from http://www.yourdigitalafterlife.com/

Chu, N. (2015). Protecting privacy after death. Journal of International Human Rights, 13(2), 255-275. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=111341196&site=ehost-live&scope=site

Ferrante, R. E. (2013). The relationship between digital assets and their transference at death: "It's complicated". Loyola Journal of Public Interest Law, 15(1), 37-61. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=94414553&site=ehost-live&scope=site

Goddard, M. (2017). The EU General Data Protection Regulation (GDPR): European regulation that has a global impact. International Journal of Market Research, 59(6), 703-705. http://doi.org/10.2501/IJMR-2017-050

Harbinja, E. (2013). Does the EU Data Protection Regime Protect Post-Mortem Privacy and What Could Be the Potential Alternatives? SCRIPTed. Retrieved from http://scripted-ed.org/?p=843

Internet Archive (n.d.). About the Internet Archive. Retrieved from https://archive.org/about/

Klein, S. A., & Parthemer, M. R. (2015). Plan ahead: Protect your #DigitalFootprint. Florida Bar Journal, 89(1), 51-54. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=100170249&site=ehost-live&scope=site

Lamm, J. (2012, November 19). Uniform Law Commissions Drafting Committee on Fiduciary Access to Digital Assets [Web log post]. Retrieved from http://www.digitalpassing.com/2012/11/19/uniform-law-commission-drafting-committee-fiduciary-access-digital-assets/

Library of Congress (n.d.). Personal Archiving. Retrieved from http://digitalpreservation.gov/personalarchiving/

Morrison, M. A., Cheong, H. J., & McMillan, S. J. (2013). Posting, lurking, and networking: Behaviors and characteristics of consumers in the context of user-generated content. Journal of Interactive Advertising, 13(2), 97-108. doi:10.1080/15252019.2013.826552 Retrieved from

http://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=97509048&site=ehost-live&scope=site

Pan, Z., Lu, Y., Wang, B., & Chau, P. Y. K. (2017). Who do you think you are? common and differential effects of social self-identity on social media usage. Journal of Management Information Systems, 34(1), 71-101. doi:10.1080/07421222.2017.1296747 Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=122604121&site=ehost-live&scope=site

Rhizome (n.d.). Software. Retrieved from http://rhizome.org/software/

Uniform Law Commission. (n.d.a) Comparison of UFADAA, PEAC, and Revised UFADAA. Retrieve from http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/Comparison%20of%20UFADAA%20PEAC%20and%20Revised%20UFADAA.pdf

Uniform Law Commission. (n.d.b). The Revised Uniform Fiduciary Access To Digital Assets Act. Retrieved from http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/Revised%202015/Revised%20UFADAA%20-%20Summary%20-%20Sep%202017.pdf

Zastrow, J. (2017). Online legacies and digital estate planning. Computers in Libraries, 37(5), 12-15. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=123647438&site=ehost-live&scope=site